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OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER				
HALDM, SAHERA				
ART UNIT		PAPER NUMBER		
2157				
NOTIFICATION DATE		DELIVERY MODE		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/692,797

Applicant(s)

TAKAHASHI, MASAYUKI

Examiner

SAHERA HALIM

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. The Office Action is responsive to communication filled on October 27, 2003.
2. Claims 1-25 are pending.

Objections

3. The Title is objected to because it is not descriptive enough. Correction is required. See MPEP § 608.00.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data.

When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (claim to data structure stored on a computer readable medium that increases computer efficiency held statutory) and *Warmerdam*, 33 F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data structure stored in memory held statutory product-by-process claim) with *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory).

In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See *Lowry*, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

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9. Claims 18 and 25 are rejected under 35 U. S. C. 101 because the claimed invention is directed to non-statutory subject matter as follows. Claims 18 and 25 defines a **program** embodying functional descriptive material. However, the claim does not define a computer - readable medium or memory and is thus non-statutory for that reason (i.e., "When functional descriptive material is stored on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized" - Guidelines Annex IV). That is, the scope of the presently claimed **program** can range from paper on which the program is written, to a program simply contemplated and memorized by a person.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 1, recites the limitation "a second information processing apparatus that performs" in line 4 of the claim. There is insufficient antecedent basis for this limitation in the claim.

6. Claim 1, recites the limitation "the second information processing apparatus is connected with the same network as that with which the first information processing apparatus" in line 22 of the claim. There is insufficient antecedent basis for this limitation in the claim.

7. Claim 1, recites the limitation "in such manner that " in line 27 of the claim. There is insufficient antecedent basis for this limitation in the claim.
8. Claim 1, recites the limitation "same network as that with which" in line 29 and 35 of the claim. There is insufficient antecedent basis for this limitation in the claim.
9. Claim 1, recites the limitation "a second information processing apparatus that performs" in line 4 of the claim. There is insufficient antecedent basis for this limitation in the claim.
10. Claim 2, recites the limitation "the connection" in line 5 and line 9 of the claim. There is insufficient antecedent basis for this limitation in the claim.
11. Claim 2, recites the limitation "as the information associated with" in line 4 and line 9 of the claim. There is insufficient antecedent basis for this limitation in the claim.
12. Claim 2, recites the limitation "same network as that with which" in line 16 of the claim. There is insufficient antecedent basis for this limitation in the claim.
13. Claim 3, recites the limitation "with connection" in line 4 of the claim. There is insufficient antecedent basis for this limitation in the claim.

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14. Claim 3, recites the limitation "the result" in line 12 and 16 of the claim. There is insufficient antecedent basis for this limitation in the claim.

15. Claim 3, recites the limitation "the connection" in line 14 of the claim. There is insufficient antecedent basis for this limitation in the claim.

16. Claim 3, recites the limitation "same network as that with which" in line 18 of the claim. There is insufficient antecedent basis for this limitation in the claim.

17. Claim 7, recites the limitation "same network as that with which" in line 23, 30 and 35 of the claim. There is insufficient antecedent basis for this limitation in the claim.

18. Claim 7, recites the limitation "in such manner that " in line 28 of the claim. There is insufficient antecedent basis for this limitation in the claim.

19. Claim 8, recites the limitation "in such manner that " in line 16 of the claim. There is insufficient antecedent basis for this limitation in the claim.

20. Claim 8, recites the limitation "same network as that with which" in line 19, 22 and 28 of the claim. There is insufficient antecedent basis for this limitation in the claim.

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21. Claim 9, recites the limitation "same network as that with which" in line 11 of the claim. There is insufficient antecedent basis for this limitation in the claim.

22. Claim 10, recites the limitation "same network as that with which" in line 11 of the claim. There is insufficient antecedent basis for this limitation in the claim.

The above rejection applies to all of the remaining claims (11 – 25) that have the above limitations.

Claim Rejections - 35 USC § 102

23. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

24. Claims 1-22, and 24-25 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S Pat Pub. No. 2002/0138552 to DeBruine et al. (hereinafter DeBruine).

25. Regarding claim 1, DeBruine teaches an information processing system including a first information processing apparatus (see Fig. 1A, computer clients) connected with a first network (LAN 16) and also connected with a second network (Internet 10) via an address translator for addresses translation (see par. 0024, the firewall may perform

NAT), a second information processing apparatus that performs communication with the first information processing apparatus (another computer 18 of Fig. 1A), and a third information processing apparatus (server node 12 of Fig. 1A and 1B) connected with the second network (connected to the Internet), for managing communication between the first information processing apparatus and the second information processing apparatus (see Fig. 1A – 1B; and abstract), wherein the first information processing apparatus (client computer) requests the third information processing apparatus (server node 12) to provide information associated with connection of the second information processing apparatus (see par. 0020 – 0027; the client submits a search to the server 12); the third information processing apparatus provides information associated with the connection of the second information processing apparatus to the first information processing apparatus (see par. 0028 – 0032; the server provides the client with information of local nodes); the first information processing apparatus determines, on the basis of the information provided by the third information processing apparatus, whether the second information processing apparatus is connected with the same network as that with which the first information processing apparatus is connected (see par. 0029 – 0038; searched results are sorted first by locally reachable client nodes, followed by directly and then returned to the requesting node); and the first information processing apparatus performs communication with the second information processing apparatus in such a manner that if the second information processing apparatus is determined to be connected with the same network as that with which the first information processing apparatus is connected, communication with the second

information processing apparatus is performed on the basis of an address defined on the first network (see par. 0030 – 0038; If the node registry indicates that NAT has been performed on both nodes, the target node is considered to within the same network as the requesting client) , while if the second information processing apparatus is determined not to be connected with the same network as that with which the first information processing apparatus is connected, communication with the second information processing apparatus is performed on the basis of an address defined on the second network (see par. 0027 – 0038; If the server can connect to the client node 14 through the client IP address, then node 14 is directly reachable form the network 10).

26. Regarding 2, DeBruine teaches an information processing system according to claim 1, wherein the first information processing apparatus requests the third information processing apparatus to provide, as the information associated with the connection, an address, defined on the second network, of the second information processing apparatus; the third information processing apparatus provides, as the information associated with the connection, the address, defined on the second network, of the second information processing apparatus; and the first information processing apparatus determines, on the basis of the address, defined on the second network, of the second information processing apparatus, whether the second information processing apparatus is connected with the same network as that with

which the first information processing apparatus is connected (see par.0021 - 0032) .

27. Regarding claim 3, DeBruine teaches an information processing system according to claim 1, wherein the first information processing apparatus requests, as the information associated with connection, information indicating whether the second information processing apparatus and the first information processing apparatus are connected with the same network; the third information processing apparatus examines whether the second information processing apparatus and the first information processing apparatus are connected with the same network and the third information processing apparatus provides the result of the examination as the information associated with the connection; and the first information processing apparatus determines, on the basis of the received information indicating the result of the examination performed by the third information processing apparatus, whether the second information processing apparatus is connected with the same network as that with which the first information processing apparatus is connected (see par. 0017 – 0028).

28. Regarding claim 4, DeBruine teaches an information processing system according to claim 3, wherein the third information processing apparatus examines whether the first information processing apparatus and the second information processing apparatus are connected with the same network, on the basis of addresses, defined on the second network, of the first information processing apparatus and the

second information processing apparatus (see par. 0017 – 0028).

29. Regarding claim 5, DeBruine teaches an information processing system according to claim 3, wherein the third information processing apparatus examines whether the second information processing apparatus and the first information processing apparatus are connected with the same address translator to examine whether the second information processing apparatus and the first information processing apparatus are connected with the same network (See Fig. 2 – 4 and par. 0023 – 0035).

30. Regarding claim 6, DeBruine teaches an information processing system according to claim 5, wherein the third information processing apparatus examines whether the second information processing apparatus and the first information processing apparatus have the same address defined on the second network to examine whether the second information processing apparatus and the first information processing apparatus are connected with the same network (See Fig. 2 – 4 and par. 0023 – 0035).

31. Regarding claim 7, this claim has similar limitations as to claim 1; therefore, claim 7 is rejected under the same rationale as claim 1.

32. Regarding claim 8, DeBruine teaches an information processing apparatus that performs communication with another information processing apparatus, the information processing apparatus being connected with a first network and also connected, via an address translator for addresses translation, with a second network with which a sever is connected, the information processing apparatus comprising (abstract and Fig. 1)

request means for requesting the server to provide information associated with connection of said another information processing apparatus see par. 0020 – 0027; the client submits a search to the server 12);

reception means for receiving information associated with the connection of said another information processing apparatus from the server (see par. 0028 – 0032; the server provides the client with information of local nodes); and

communication means for performing communication with said another information processing apparatus in such a manner that the communication means determines, on the basis of the information received from the server, whether said another information processing apparatus is connected with the same network as that with which the information processing apparatus is connected (see Fig. 4), and if it is determined that said another information processing apparatus is connected with the same network as that with which the information processing apparatus is connected, the communication means performs communication with said another information processing apparatus on the basis of an address defined on the first network (see par. 0030 – 0038; If the node registry indicates that NAT has been performed on both nodes, the target node is considered to within the same network as the requesting client), while

if it is determined that said another information processing apparatus is not connected with the same network as that with which the information processing apparatus is connected, the communication means performs communication with said another information processing apparatus on the basis of an address defined on the second network (see par. 0027 – 0038; If the server can connect to the client node 14 through the client IP address, then node 14 is directly reachable from the network 10).

33. Claims 9 – 12 have similar limitations as to claims 1-6; therefore, they are rejected under the same rationale as claims 1-6.

34. Regarding claim 13, DeBruine teaches an information processing apparatus according to claim 8, wherein the first network is a LAN (see par. 0017); the second network is the Internet (see Fig. 1 and par. 0016); the address on the first network is a local address; and the address on the second network is a global address (see Fig. 1A-B and par. 0016 – 0017).

35. Regarding claim 14, DeBruine teaches an information processing apparatus according to claim 8, wherein if the information received from the server indicates that said another information processing apparatus is not connected with the same network as that with which the information processing apparatus is connected, the request means further requests the server to provide an address, defined on the second

network, of the information processing apparatus (see par. 0022 – 0031).

36. Regarding claim 15, DeBurine teaches an information processing apparatus according to claim 8, wherein if it is determined that said another information processing apparatus is not connected with the same network as that with which the information processing apparatus is connected, the communication means transmits the address, defined on the second network, of the information processing apparatus to said another information processing apparatus via the server and receives the address, defined on the second network, of said another information processing apparatus via the server (see par. 0022 – 0031).

37. Regarding claim 16, DeBurine teaches an information processing apparatus according to claim 8, wherein if it is determined that said another information processing apparatus is connected with the same network as that with which the information processing apparatus is connected, the communication means transmits the address, defined on the first network, of the information processing apparatus to said another information processing apparatus via the server and receives the address, defined on the first network, of said another information processing apparatus via the server (see par. 0022 – 0031).

38. Claims 17 and 18 have similar limitations as to claims 1-7, and therefore, they are rejected under the same rational.

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39. Claims 19 – 22, 24 and 25 have similar limitations as claims 1-16; therefore, they are rejected under the same rational.

Claim Rejections - 35 USC § 103

40. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

41. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over DeBruine. DeBruine does not explicitly teach an information processing apparatus according to claim 19, wherein the information mean transmits 1-bit data indicating the result of the examination performed by the examination means to the first apparatus. However, DeBurine teaches transmitting the examination results to the first apparatus in a search form. Therefore, having the teachings of DeBruine it would have been obvious for a person having ordinary skill at the time of the invention to transmit the examination in a 1-bit form in order to save network bandwidth (see par. 0007).

Conclusion

42. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US. Pat. No. 6,393,488 to Araujo (teaches system and method for supporting IP subnets with NAT)

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US. Pat. No. 6,510,154 to Mayes et al. (teaches certain packets are allowed to enter local networks based an FTP initiation session)

U.S. Pat. No. 6,993,012 to Liu et al. (A method of communication between a client located behind a NAT server and a remote client over UDP channel)

43. Any inquiry concerning this communication or earlier communications from the examiner should be directed to SAHERA HALIM whose telephone number is (571)272-4003. The examiner can normally be reached on M-F from 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571) 272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Sahera Halim
Patent Examiner

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March 20, 2008

/Ario Etienne/

Supervisory Patent Examiner, Art Unit 2157